

CLAIMS

1. A catalytic converter substrate comprising:
a substrate having cells defined therein by thin perimeter walls
and thin interior walls; and
a catalyst washcoat selectively disposed on said substrate so as to
5 maximize substrate strength in areas requiring the greatest amount of structural
integrity.
2. The catalytic converter substrate of claim 1, wherein said
washcoat is selectively disposed on said substrate so as to maximize substrate
strength in the area of said perimeter walls.
3. The catalytic converter substrate of claim 1, wherein said
washcoat disposed on said perimeter walls has a thickness of about 0.043
millimeters to about 0.153 millimeters and said washcoat disposed on said
interior walls has a thickness of about 0.014 millimeters to about 0.051
5 millimeters.
4. The catalytic converter of claim 1, wherein said thin
perimeter walls and said thin interior walls comprise a wall thickness of about
0.109 millimeters to less than about 0.064 millimeters.

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5. A method for preparing a catalytic converter substrate comprising:

preparing a substrate having cells defined by thin perimeter walls and thin interior walls; and

5 selectively disposing a catalyst washcoat on said substrate so as to maximize substrate strength in areas requiring the greatest amount of structural integrity.

6. The method of claim 5, comprising:

selectively disposing said washcoat so as to maximize substrate strength in the area of said perimeter walls.

7. The method of claim 5, comprising:

disposing said washcoat on said perimeter walls at a thickness of 0.043 millimeters to about 0.153 millimeters; and

5 disposing said washcoat on said interior walls at a thickness of about 0.014 millimeters to about 0.051 millimeters.

8. The method of claim 5, wherein said thin perimeter walls and said thin interior walls comprise a wall thickness of about 0.109 millimeters to less than about 0.064 millimeters.

9. The method of claim 6, wherein said selectively disposing comprises employing vitreous coating processes, masking, or a combination thereof.